A-3 272
METROLOGY
LABORATORY

Model #
CS-45V14A

POWER SUPPLIES UNLIMITED

Electronic Services - Los Angeles
M13578X

NJE CORPORATION Kenilworth, New Jersey

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INSTRUCTION MANUAL

FOR

NJE MODEL CS-45V14A

CUSTOM POWER SUPPLY

NJE CORPORATION
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FSCM 98380

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NJE DWG. NO. 104486
Sheet 1 of 3
7/15/64

SECTION 1

SPECIFICATIONS

1. DESCRIPTION: The NJE Model CS-45V14A Custom Power Supply is a regulated source of DC power. It is an integral unit designed for mounting in a standard, 19-inch relay rack or cabinet. The Power Supply has two ranges, selectable by means of a plug-in control unit. The electrical specifications are as follows:

   Input: 115 ± 10 volts, 60 cycles per second, 1 phase.

   Output: 1. Adjustable by coarse control between 80 and 170 volts DC at 200 milliampers; or between 170 and 260 volts DC at 200 milliamperes. The output voltage (as selected by the control) can be adjusted ±10 percent by vernier control.

   2. 6.35 volts AC center-tapped at 5 amperes.

   Regulation: 2 percent total for 105 to 125 volt input line variation and zero to full load variation.

   Ripple: Total of hum and noise less than one millivolt peak-to-peak.

2. INSTALLATION: The panel is notched for installation in a standard, 19-inch, relay rack or cabinet. Once the panel has been mounted and the AC switch set to the OFF position, the input and output plugs should be inserted into their mating receptacles and the desired control unit inserted into place. The equipment is now ready to operate.

3. OPERATION: To operate the equipment proceed as follows:

   (a) Set COARSE and FINE controls to maximum counterclockwise position.

   (b) Set POWER switch to ON position.

(c) After twenty seconds, set DC switch to ON position.

(d) Set FINE control to middle of its range.

(e) Set COARSE control for desired output voltage. FINE control can now be used to vary output voltage ± 10 percent.

To shut down the equipment, set DC and AC switches to OFF position.

J2
1 + DC OUTPUT
2 N.C.
3 - DC OUTPUT
4 GROUND
5 6.3V AC, 5A
6 CT
7 6.3V AC, 5A
8 N.C.

LINE F1 4A — AC S1 — J1 — 115 V 60 CPS 1 PH INPUT

T2: 6.3V @ 4A; 5V @ 2A; 6.3V @ .6A; 6.3V CT @ 5A OUTPUT → TO J2-5, TO J2-6, TO J2-7

DC S2A — T1 → TO J3-1, TO J3-3 VI 5R4, TO J3-2, TO J3-4, TO J3-8, TO J3-7

TO JUNCTION R2, R3 & R5

TO R18A; TO R6A; TO R6B; JUNCTION R16 & R17

TO TI-8, TO TI-7, TO VI-4, TO TI-5 → J3 → TO TI-4, TO VI-6, R18B, TO V4-8

NOTE: USE EXTERNAL ADJUST CIRCUIT FOR OUTPUT VOLTAGE REQUIRED.

		CE				
1		FD	A1875	10/2/58	S. MAC	

W — S2B — I2 — W

I1

(4 IN PARALLEL)

R2A-D 100Ω ½W; R3A-D 22Ω ½W; V4A-D 6L6GB; X X

C1 8MFD 1000VDC; C3 8MFD 1000VDC; C2 8MFD 1000VDC; L1

R5 1MΩ 2W; R4A-D 1K ½W

TO J3-5; TO J3-6; TO J3-9

C4 .05 MFD 200V DC; C6 10MFD 600VDC

V3 0A2; V5 0A2; 2.4.7

R6A 15K 20W; R6B 12.5K 20W

C5 .05MFD 200V; C12 400MMF 1000VDC; C11 470MMF 1200VDC

V6 6U8

R7 27K 2W A-B; R8 2.2MΩ ½W 1%; R9 2.2MΩ ½W 1%

C7 .05MFD 400VDC; R10 2.7MΩ ½W 1%; C8 .05MFD 400VDC

R12 270K 1W 1%; R13 270K 1W 1%

V7 12AX7; WW

R14 150K 1W 1%; V8 85A2; C9 .05 MFD 200VDC

R15 10K 2W

M1 250 MA DC

300V DC

C10 2MFD 600VDC

TO J3-10; TO J3-12

R18A 12K 10W; R18B 6K 10W

R16 470K ½W

R17 82K 1W 1%

TO J3-14

J2 → TO T2

EXTERNAL ADJUST 170 TO 260V

P3

R19 50K A-B 2W FINE; R20 250K 2W COARSE

EXTERNAL ADJUST 80 TO 170V

P3

R19 50K A-B 2W FINE 1; R20 250K 2W COARSE

APPLICABLE TO SERIAL NO. UP TO 6376

N. J. E. CORPORATION
345 CARNEGIE AVE KENILWORTH, N.J.

SCHEMATIC

S-CS-45V14A-13 1

OA 12-27-60

MANUFACTURER'S REPRESENTATIVES

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OR 8-6144

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CLearwater 2-5604

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Ridgway Associates
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Burlingame Associates, Ltd.
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JAckson 8-6080

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TA 3-5383(Dallas)

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PE 8-1702

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Carey-Wolf Co.
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OL 4-2114

Washington, Seattle
Ray Johnson Co., Inc.
1011 N.E. 69th Street
Seattle 15, Washington
LA 4-5170

Washington, D. C.
Burlingame Assoc., Ltd.
8218 Wisconsin Ave., N.W.
Washington 14, D. C.
OLiver 4-6400

*Local Service Centers.

Our Warranty:

N J E Corp. warrants each power supply manufactured by them to be free from defects in material and workmanship. Our liability under this warranty is limited to servicing or adjusting any instrument returned to the factory for that purpose and to replacing any defective parts thereof, except tubes, semi-conductors and fuses. This warranty is effective for five years after delivery to the original purchaser when the instrument is returned, transportation charges prepaid by the original purchaser, and which upon our examination is disclosed to our satisfaction to be defective. If the fault has been caused by misuse or abnormal conditions of operation, repairs will be billed at cost. In this case, an estimate will be submitted before the work is started. Written permission must be obtained from the factory, before a supply may be returned for examination.

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